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Cholera
Doxe

W Smith

passed March 7th 1817

To be acquainted with the functions of the abdominal viscera and thereby be able to comprehend the pathology or diseased state of those parts, it is of the first importance to attend to their connections with each other. The liver, stomach and intestines form the extremities of one complete system of vessels, viz: the vena portarum.— The vena portarum may be correctly described as a tree, which shoots its roots widely among the viscera of the abdomen, and extends its branches into the substance of the liver. The bile which is the peculiar secretion of the liver being collected from the extreme branches of the hepatic system by the branches of the ductus hepaticus, flows into the intestines, and as it is their peculiar stimulus, it holds a sway over their actions according to the quantity and quality discharged into them. The intestines being excited, have a reciprocal influence upon the glandular viscera, and particularly upon the liver, because on the excitement of the intestines depends the velocity of the circulation through them; and the returning blood of the intestines is sent back, not into the heart, but through the vena portarum into the liver; and thus in an obvious manner are these viscera connected viz: The intestines with the liver by the biliary secretions, and the liver with the intestines and stomach through the medium of the circulation

circulation of the blood in the vena portarum. —

Cholera is derived from χολη, bile, and ρεω, to flow. Celius Aurelianus says the name is derived from χολη, bile, and ροη, a flux. Dr Cullen places it in the class Neuroses, and order Spasmi. he might with more propriety have placed it in the order Profluvia. The Doctor has two species, 1st Cholera Spontanea which happens in hot seasons and without any manifest cause. 2. Cholera Accidentalis which occurs after the use of food that digesteth slowly, and becomes too acrid. —
A copious discharge of bilious matter upwards and downwards with spasm, constitutes this disease. It is marked by great gastric distress, pain, and tenderness of the abdomen, flatulency, and distention, acute griping pains, quickly succeeded by a violent vomiting and purging, concurring together, or frequently alternating with one another, with spasms particularly of the lower extremities; there is a considerable degree of thirst, hurried respiration, the pulse is at first quick and feeble, but afterwards becomes stronger.

Causes.

This disease is to be met with in warm climates at all seasons of the year. In temperate climates it prevails most gene

generally in the months of August and September, so as to be considered in some countries as an autumnal Epidemic. It occasionally, however, prevail in every climate and every season. Marsh miasmata may be placed at the head of the causes which predispose to the disease; it is therefore closely analogous to Intermittent Fever, Bilious colic &c. It frequently takes place to all appearance spontaneously and independent of any exciting cause being applied; at other times it is evidently connected with sudden vicissitudes of temperature, giving rise to obstructed perspiration; It also arises from intemperance in eating and drinking; From taking in food difficult of digestion and which has passed readily into the acetous fermentation; Acrid ingesta. But these causes ~~frequently~~ probably do not often give rise to it without a predisposition acquired by preceding great heat, and the violence of the disease has been usually observed to be proportionate to the intensity of the heat; It is also observed to be peculiarly violent during the prevalence of an Epidemic. In St Mary's County (Maryland) there is no disease of so frequent occur-

occurrence as Cholera Morbus; this country is low, nearly insulated and intersected with muddy creeks and marshes; a large majority of the inhabitants are Roman Catholics who in compliance with their religious tenets, abstain from flesh two days in the week, and on those days it is customary with them to feast upon fish, particularly crabs during the autumnal months, which together with a predisposition acquired by miasmatic exhalations, proves not unfrequently the cause of fatal Cholera.—

Authors have generally coincided in placing Cholera under the head of those diseases which depend on the copious secretion of bile. But they have evidently mistaken the effect for the cause —a mere symptom for the original disease— for there is nothing more obvious to every one, than that it is as completely a gastric affection as any in the whole catalogue of diseases. Whatever may be the cause, it acts primarily on the stomach, which being intimately connected with the liver that organ receives the impression, and a preternaturally increased secretion of bile is the consequence; this fluid being

being poured into the intestines produces the phenomena of vomiting and purging.

Saunders in his treatise on the Liver observes, "That the bile discharged in Cholera is in a very diseased state, by no means corresponding with the nature of that secretion in its natural or healthy state. It seems probable that from the quantity secreted, and the rapid manner in which it is thrown into the duodenum, there is not time for a perfect secretion, that the fluid is therefore of an intermediate nature between blood and bile: perhaps from a hurried circulation a considerable quantity of red globules escape unchanged from the capillary vessels into the pori biliarii, and uniting with a portion of bile ~~are~~ carried by the hepatic ducts into the duodenum". The varied and increased action of a gland has much influence in determining the nature of the fluid secreted. In some of the unhealthy actions of the liver the bile is discharged of a green colour and extremely acrid, not possessing the qualities of healthy bile. In Cholera the bile does not appear to be characterized by any unusual acrimony; it is on the

the contrary highly probable, ~~that~~ its acrimony is less than even in health; for if the same quantity of what is strictly termed healthy bile was thrown into the intestines, there is very little doubt but that we should have a train of much more distressing symptoms to encounter. My friend, Mr Sappington of Havre-de-Grace informs me that he had a patient labouring under a violent attack of Cholera who when vomiting observed that the bile had a sweet taste; this induced Mr Sappington to taste it himself, and he found the bile to be very sweet, without bitterness, or any other disagreeable taste. Having had several attacks of this disease I have myself, remarked this want of bitterness in the bile but have never observed the sweet taste.

Cholera morbus occurs with different degrees of violence in different habits; in some it is so acute as to terminate fatally in a few hours, while in others it is expressed only by a slight purgative, and emetic operation. — When the disease is not ~~very~~ violent, the symptoms which have been before enumerated after continuing for a short time, gradually subside, leaving the patient in a debilitated and exhausted state

state; but when the disease proceeds with much violence there is great prostration of strength, with cold clammy sweats, considerable anxiety, a hurried and short respiration, cramps in the legs, coldness of the extremities and hiccups, with a sinking and intermitting pulse, which speedily terminate in death; an event that not unfrequently takes place in twenty four hours, and now and then, in a much shorter space of time. I saw a case which terminated fatally in six hours; it was brought on by eating crabs and shortly after drinking a tumbler of milk. Dr Chapman ~~[illegible]~~ has seen a case terminate fatally between the hours of dinner and supper, which was brought on by eating watermelon.

Treatment

There are many cases of Cholera which are comparatively mild and only require the administration of a remedy calculated to calm the irritation of the stomach; to answer this purpose we may give an opiate, or a small glass or two of the artificial mineral

mineral-water, or the effervescing draught.—
The most ancient as also the most common practice, is to dilute the contents of the stomach by copious drinks of chamomile tea, chicken water, barley water, &c &c Dr Sydenham says, "Much consideration and experience have taught me, that to endeavour on the one hand to expel the sharp humours which feed this disease by purgatives would be like attempting to extinguish fire with oil, as the most lenient cathartics would increase the disturbance and raise new tumults. And on the other hand, to check the first effort of the humour in the very beginning by opiates and other astringents, whilst I prevented the natural evacuation and forcibly detained the humours within the body, would doubtless destroy the patient by intestine commotion, the enemy being pent up in the bowels. These reasons lead me therefore to keep the middle path, viz: partly to evacuate, and partly to dilute the humour." This is not the only instance on the records of medicine of bad practice from

from apparently plausible theories. Professor Chapman in his lecture on this disease, observes, that as he saw no good reason for the common practice, he is in the habit of at once emptying the stomach by the administration of an emetic, (20grs of Ipecacuanha) and promoting its action by the ordinary drinks. This practice is to me entirely new, and so far as I know originated with the excellent Professor. But though I have never seen its effects in this disease, I have not the least doubt of its decided superiority over every other hitherto recommended. It causes the system to react and presents to us an open form of disease.

Blood letting forms certainly the most important part in the treatment of this disease; it is to be regulated by the existing state of the system. The pulse here, as in almost all the species of Intestinal disease is a very fallacious guide and one not at all to be trusted. In the commencement if the pulse is feeble, we must bleed in small quantities; we must always in these cases gently solicit, and not imperiously demand a reaction, the powers of the system are locked up. In

In the early stages of most diseases attended with pain and with a small pulse, we may take for granted, that it is a depressed state of disease, we are then to proceed as was before stated, cautiously at first, lest the system be not in a condition to react, and its restorative energies be overwhelmed; ~~[illegible]~~ under these circumstances we shall with the greatest advantage premise the warm-bath — It rouses the system out of its torpor — allays the irritability of the stomach — invites the disease from the internal, to the external surface — and paves the way for the administration of more appropriate remedies.

Our remedies must now be such as are calculated to calm the irritation of the system more effectually and to put an entire stop to the reactions, and very happily for us we have a great variety of medicines which answer this end. It will be needless for me to enumerate every medicine that has been used for this purpose; I shall therefore confine myself to those only which appear

appear to be peculiarly suited to Cholera Morbus.—

Opium is generally the first remedy mentioned by authors who have treated of this disease, it is by some highly recommended, but I believe it is seldom retained in the stomach a sufficient length of time to produce any good effect, especially if the stomach is very irritable; the pill is less apt to be rejected than the tincture; in the form of an enema it stands preeminent; an injection of laudanum will often in a very short space of time remove all the urgent symptoms, and transfer the patient from a state of torture to one of ease; enemata of this kinde should therefore be administered from time to time pro re nata. The Effervescing draught is often found an excellent remedy in checking vomiting; it is made by taking ℥j or ℥ss of Carbonate of potash, first dissolve it in a small quantity of water, and then add enough lime or lemon juice to saturate it; the patient may either take it in the act of effervescence, or he may first take the alkali and then the acid, and let the effervescence go on in the stomach. The Soda and Selzer water

water have a very similar effect; a wine glass full, and learned every half hour or oftener has been known to afford much relief. It will be well enough to mention here, that a patient in cholera should never swallow more off any liquid than a mouthfull or two at a time; nor ought even that to be frequently repeated, for the mere mechanical distention of the stomach will increase its irritation and produce vomiting.

Serpentaria Virginiana has been found eminently beneficial in checking bilious and other vomitings; it quiets the convulsive action of the stomach, and allays irritation. Dr Rush shortly after he returned from Europe, was taken with a violent bilious remittent fever, all the experienced practitioners of Philadelphia had expended their resources in endeavouring to put a stop to the most intractable and alarming symptom of the disease, the bilious vomiting, but to no purpose whatever; Dr Rush since distinguished by the efficacy of his practice, and the solidity of his judgment, called to see Dr Rush as a friend; by the practitioners in attendance he

was requested to give his opinion, he unhesitatingly recommended the Serpentaria in decoction, a practice he had learned from the venerable Linnæus, of whom he had been a pupil, the remedy succeeded entirely to their wishes, and the distinguished patient was in a short time enabled to commence the course of usefulness and honour which awaited him.
The son of the late secretary of the treasury (Mr. Dallas) was taken with an autumnal fever, the bilious vomiting was the most distressing symptom of the fever, and notwithstanding all the customary remedies were vigorously prescribed by the physician in attendance, (Dr Chapman) it had very nearly proved fatal, when Dr Kuhn was called into consultation, the case of Dr Rush immediately recurred to his recollection, the Serpentaria was administered & the patient quickly removed from the impending danger.
The tincture of cloves is also employed for this purpose, and very often with the happiest effects. In the mean time, external applications are not without their use. Let flannel, wet with some spirits or brandy, be placed on the abdomen, and wrapt round the extremities; the efficacy of the

the remedy appears to be increased, by mixing with the liquor used, some tincture of cloves, or oil of mint, &c. Pulverized pepper, ginger, or other spices formed into a plaster by means of soap and moistened with spirits, may be applied to the same parts. All these remedies failing, as a last resort, Blisters may be advantageously had recourse to; a large one may be applied to the region of the stomach. I say a large one, inasmuch as it is much more efficacious than a small one, it gives no more pain, and is equally ready in healing again. Should there be great disposition to sink, blisters or sinapisms applied to the extremities are indispensible.

The debility consequent to this disease greatly favours its disposition to a relapse from slight causes. We must therefore, strictly enjoin our patient studiously to avoid all the exciting causes of the complaint — as all undue exercise — paroxysms of passions — intemperance in eating and drinking — he is carefully to abstain from every thing that is not easy of digestion, and use such articles as are light and nutritive. For this purpose a drink consisting of mucilage of

of Gum Arabic and lime water is peculiarly adapted, it will remain on the stomach when every thing else will be rejected. He must also observe a due regard to temperature by warm clothing; flannel next to the skin & cold feet are to be particularly guarded against and above all, great attention must be paid to the bowels, keep them in a soluble state — and to restore their tone administer the bitter tonics. The happiest consequences will result from wearing a flannel roller around the abdomen; it ought to be applied so as to extend from the hips to the axillæ.